

SDMS # 963088

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IRECO Incorporated

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004854

17 November 1988

Mr. Deane H. Zeller, District Manager  
Bureau of Land Management  
Salt Lake District Office  
2370 South 2300 West  
Salt Lake City, UT 84119

Re: CERCLA Investigation of Lehi Plant, Site A,  
CERCLIS ID No. 070546445

Dear Mr. Zeller:

Thank you for sending a copy of the Draft Site Investigation Report for our facility on Utah Lake. Although you have not requested IRECO's comments, we think that there are areas of concern that should be called to your attention before the Report is put in final form.

The Draft Report indicates that some residuals of explosives remain in the soils of the burn pit, particularly in one small area where contamination was visible. The report goes on to recommend that 40 to 60 cubic yards of soil be excavated for off-site treatment by incineration and disposal at an "EPA-approved" facility. Our opinion is that this recommendation is totally unwarranted from the information developed in the site study.

The hazards identified in the Draft Report are:

- (1) Surface migration through erosion of soils in the burn pit; and
- (2) Migration in air during burning.

See pages 5-5 through 5-6. As the Draft Report notes, the Site A area is a discharge area for groundwater. See page 5-3. Thus, groundwater contamination is not a concern.

Concern with surface migration is contradicted by the Draft Report's finding of no detectable contamination of water in the seismic pond, directly downhill from the burn pit. See pages 1-3, 5-6. Additionally, this concern could be addressed by covering the burn pit when closure is complete.

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The concern with air migration is similarly questionable. No authority is cited for the statement that oxides of nitrogen are produced by thermal decomposition of the explosives treated at the burn pit. See pages 1-3, 5-7. No evaluation is made of quantities that could have been evolved or possible exposures under normal burning conditions. Comments regarding release of explosive constituents and degradation products during burning are similarly unsupported. Page 1-4. The U.S. military burns large quantities of these same explosives without adverse effect. Moreover, these questions are moot because burning will no longer be conducted at this location, except to the small extent required by the Closure Plan (see below).

There are a number of technical problems with the Draft Report; the minor points are set forth in the Attachment to this letter. The chief problem with the Report is that no evaluation is made of the significance of explosives contamination in the soil for either human health or environmental exposures. In other words, can the levels of contaminants detected cause exposures to hazardous substances that exceed acceptable levels?

The answer to this question must be analyzed with respect to possible exposure routes, exposure frequencies or probabilities, and acceptable, health-based exposure levels. In making this evaluation, it should be noted that TNT, RDX and PETN are not listed hazardous substances. They become hazardous substances only if sufficiently concentrated to be explosive, a hazardous waste characteristic. The Draft Report contains many unsupported statements about hazardous products of burning (even though burning will not be an ongoing activity), "significant levels" of explosive compounds, and off-site exposures via surface water and air migration. See, e.g., Part 3, Site Inspection Report, in Appendix C. No information is provided, however, regarding the "significance" of the levels found or potential migration. Until the question of the magnitude of hazards (if any) is addressed, it is premature to suggest incineration or disposal of large quantities of soil, as the Draft Report recommends.

If a more quantitative estimation of hazard indicates that remediation is desirable, there still remain questions regarding the extent of remediation needed and the appropriate method. Weston sampled only the top few inches of soil in the burn pit. That is not a basis for recommending excavation of twelve feet of soil. Additionally, the Draft Report fails to consider the alternatives of a solid waste disposal facility (landfill) or further treatment by open burning.

As you are aware, IRECO previously submitted a Closure Plan to the State of Utah to close the burn pit as a hazardous waste facility. A revised Closure Plan, dated 19 February 1988, was

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published for public comment in May, 1988, and public comment was due on 13 June 1988. In response to comments by Region VIII of EPA, a "clean closure" standard of less than or equal to 1000 ppm (0.1%) total explosive compounds in soil (TNT, RDX and PETN) was added to the Closure Plan. This level is far below the minimum levels (usually 12-15% or more) at which an explosion hazard exists in soil. If this low level is exceeded in the original sampling, soil is to be reburned and resampled. A final revised Closure Plan, in accordance with the approval letter from the Bureau of Solid and Hazardous Waste, was submitted on 4 August 1988.

Our initial sampling and analysis reveals that the explosive compounds in at least one sample exceed the level established in the Closure Plan. We are therefore in the process of reburning and resampling the soils in the burn pit and expect to complete closure on schedule. I am sending a copy of the final Closure Plan in the event you have not previously received it. We believe that the closure standard adequately addresses environmental concerns under both RCRA and CERCLA.

If you have any questions in this regard, we would be happy to discuss this matter with you further at your convenience. Please contact me if you have any comments or questions.

Very truly yours,

IRECO Incorporated

  
Susan R. Poulter  
Assistant General Counsel

SRP/hbg

cc w/Attachment:

Jay M Anderson, Vice President  
William Wagner, Bureau of Land Management  
Bureau of Reclamation (w/Closure Plan)  
EPA, Region VIII  
Bureau of Solid and Hazardous Waste,  
Utah Department of Health  
Roy F. Weston, Inc.

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## ATTACHMENT

Potentially Responsible Parties. Section 6, Responsible Party Information, incorrectly identifies Dyno Industrier A.S as the parent company of IRECO Chemicals. See also page 1-4. Dyno Industrier is the parent company of IRECO Incorporated. Gulf Resources & Chemical Corporation was the parent company of IRECO Chemicals. IRECO Incorporated acquired the assets (including Site A), but not the liabilities, of IRECO Chemicals in May, 1984.

Analytical Parameters. 2,4-Dinitrotoluene in soil samples was incorrectly identified as 2,4-dinitrophenol in the Target Analyte Summary Report. Compare the Summary Report with individual sample reports which follow in Appendix A.

TNT and 2-Methyl-1,3,5-trinitrobenzene. The report refers to TNT (trinitrotoluene) and 2-methyl-1,3,5-trinitrobenzene as though these were different materials. See page 1-2, 3-6, 5-5. In fact, they are two different names for the same chemical compound. See CAS numbers cited in Section IV, Part 2, EPA, Potential Hazardous Waste Site, Site Inspection Report, in Appendix C. The discrepancies in the HPLC/UV and gas chromatography/mass spectrometry results on the same samples may be the result of partial decomposition of TNT in the gas chromatograph.

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